XAIRCRAFT

MINIX

XLINK

User Manual v1.0

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1. Disclaimer and Warning

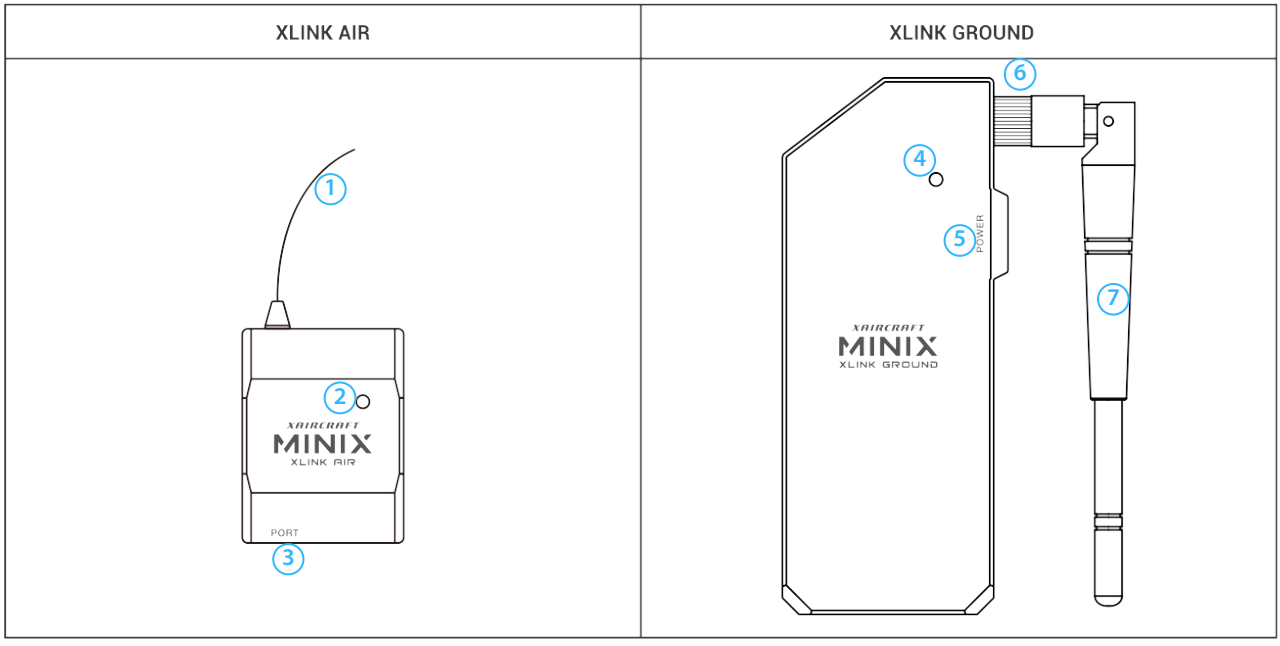
Please download the Disclaimer and Warning from www.xaircraft.com .

2. XLink at a glance

System requirements

Flight Control System	MiniX (Firmware later than v1.03)
Supported Devices	Android 4.0+ (GPS module is required)
Bluetooth Version	2.0+

Parts list



① XLink Air antenna
② XLink Air LED indicator
③ XLink Air 4Pin PORT interface
④ XLink Ground LED indicator
⑤ XLink Ground power button
⑥ XLink Ground SMA interface
⑦ XLink Ground antenna

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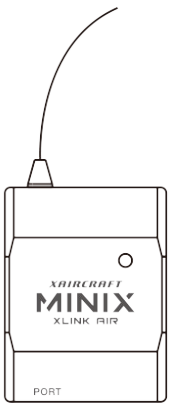
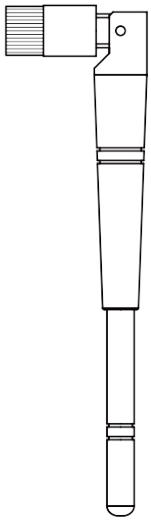
What's included



XLink Air
E4004×1

XLink Ground
E4005×1



2.4G Rod Antenna
E4006×1

4Pin Signal Cable
S2001×1

Micro USB Cable
S1002×1

Adhesive Tape
S1006×1

Terminology

XLink Ground	MiniX XLink Ground
XLink Air	MiniX XLink Air
FC	MiniX Flight Controller
XStation	Smart Device Ground Station App
Smart Device	Smartphone or Tablet

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3. 2.4G Bluetooth digital transmitter

Effective Range

- Between XLink Air and XLink Ground

The effective range between XLink Air and XLink Ground is approximately 1-500 meters. The transmission quality will be affected if XLink Air and XLink Ground are closer than 1 meter.

- Between smart device and XLink Ground

The maximum range between smart device and XLink Ground is 5 meters.

Get started

INITIAL SET UP PROCEDURES	SYSTEM INDICATIONS
1. Connect XLink Air and FC by 4Pin Cable	Ensure no power is connected to FC
2. Press and hold POWER button on XLink Ground until you hear a single "Beep".	A single "Beep" indicates that it has successfully entered standby mode, while blue LED indicator flashes slowly.
3. Turn on XStation App→tap "PAIRING"→Follow the on-screen guide to connect XLink Ground with smart device through Bluetooth.	It is essential to follow every step of the on-screen guide.
4. To connect XLink Ground with XLink Air, tap "START PAIRING" then connect power to FC until you hear a double "Beep".	A double "Beep" indicates a successful pairing.

- Note

i. **Power off:** Press and hold the POWER button until red LED indicator lights up.
ii. **Charging:** Please use the Micro USB cable to charge the inbuilt rechargeable battery in XLink Ground.
iii. **Re-Pairing:** Startup Menu: Settings→Pairing
iv. **Pairing Requirements (between XLink Air and XLink Ground):** The minimum pairing distance between XLink Air and XLink Ground should exceed one meter to avoid 2.4G device interference.
v. P**airing Requirements (between smart device and XLink Ground):** If your smart device indicates any of the following options "Allowed to access Bluetooth settings", "Allowed to use your location" and so on, please choose "Yes" and"Remember this choice", otherwise some functions might not be working properly.

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Cautions:

(1) MiniX XLink System should be treated as an addition. It is not to replace the traditional remote control and it is essential that you operate both the remote control and XLink Ground simultaneously, also must not remove the remote control receiver on the aircraft.

(2) In case of emergency or malfunction, you must take control of the aircraft using your traditional controller.

(3) If using a traditional remote control, please set a **3-Position-Switch** as follows.

- Position 0: Smart Device Command Mode
- Position 1: Radio Control Command Mode
- Position 2: Return to Home Mode

(4) Before switching to remote control, make sure that the throttle stick is in the middle position to avoid any accident due to lack of power.

(5) If there are obstacles between the XLink Ground and XLink Air then the radio signal of the XLink system will be weak; please ensure the antennas are always visually unobstructed during the flight. The human body, trees, buildings or hills might cause sudden disconnection between XLink Ground and XLink Air.

LED indicator descriptions

- XLink Air

Status	Description	LED Indicator	
OFF	Power off	Off	Off
ON	3 seconds before power up		Red LED flashes quickly
	Standby (3 seconds after power up)		Green LED lights up continuously
	Data transmission		Green LED flashes irregularly
PAIRING	Pairing mode		Red LED flashes quickly

- XLink Ground

Status	Description	LED Indicator	
OFF	Power off	Off	Off
ON	Standby (Bluetooth disconnected)		Blue LED flashes slowly
	Standby (Bluetooth connected)		Green LED lights up continuously
	Data transmission		Green LED flashes irregularly
PAIRING	Pairing mode		Red LED flashes quickly
CHARGING	Charging		Red LED flashes slowly
	Fully Charged		Red LED lights up continuously

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Sound descriptions (XLink Ground)

Status	Sound Indicator
ON	Beep
LOW BATTERY	Continuous Beep with pause
PAIRING SUCCESSFUL	Double Beep
FULLY CHARGED	Beep

Upgrade your XLink

XLink Air	Connect FC to XLink Air→Copy the firmware file to the root directory of your FC folder through Micro USB→Power cycle your FC→XLink Air will enter upgrade automatically.
XLink Ground	Copy the firmware file to the root directory of your XLink Ground will enter upgrade automatically.

Cautions: POWER CYCLE the FC system and Xlink Ground after complete upgrade.

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4. XStation

About XStation

By using XStation Ground APP, equipped with Ground/Air 2.4G Bluetooth digital transmitter and MiniX Flight Control System, you can control the aircraft entirely from your smartphone or tablet.

WHAT CAN XSTATION DO?		
Tap and Go Mode	Follow Me Mode	Joystick Mode
One Click Takeoff	One Click Landing	One Click Go Home
Real-time Flight Information Display	Map Information Display	Low Voltage Alert

Cautions: The version of your Android device which is connected to XLink Ground should be higher than 4.0.

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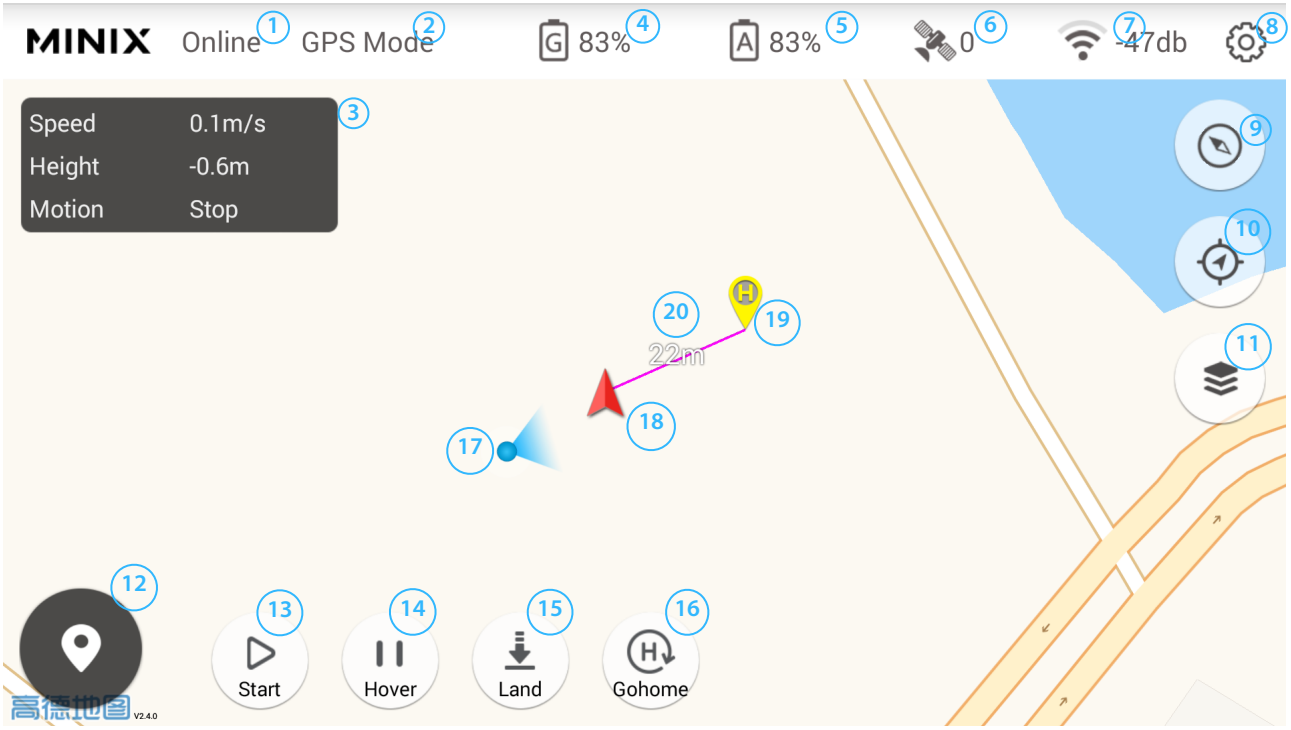
Functions

- Home screen



Flight information

① Communication status
② Flight mode (GPS/Attitude/ Manual)
③ Flight status (Click to expand)
④ XLink Ground remaining battery capacity(Click to switch between voltage and percentage)
⑤ XLink Air remaining battery capacity (Click to switch between voltage and percentage)
⑥ Satellites amount
⑦ Signal strength
⑧ Settings

Map mode

⑨ Lock map towards north
⑩ Lock aircraft in the middle
⑪ Map layer switch

Basic function

⑫ Mode switch
⑬ One click takeoff
⑭ One click hover
⑮ One click landing
⑯ One click returning to home

Map position information

⑰ My position (fan shape indicates direction)
⑱ Aircraft position (arrow indicates direction)
⑲ Return to home position
⑳ Return to home distance

- Mode switch

Tap the mode switch button on XStation to quick switch between Tap and Go Mode, Follow Me Mode and Joystick Mode.

Tap and Go Mode	Your aircraft can fly autonomously by tapping anywhere on the map.
Follow Me Mode	Your aircraft will automatically follow your every move, no matter if you accelerate, decelerate, make a U-turn or just slightly change your direction.
Joystick Mode	You can use analog sticks to control your aircraft, and it is also extremely convenient to switch to your most familiar joystick mode: Mode 1 (Japanese mode), Mode 2 (American mode) and Mode 3 (Chinese mode)

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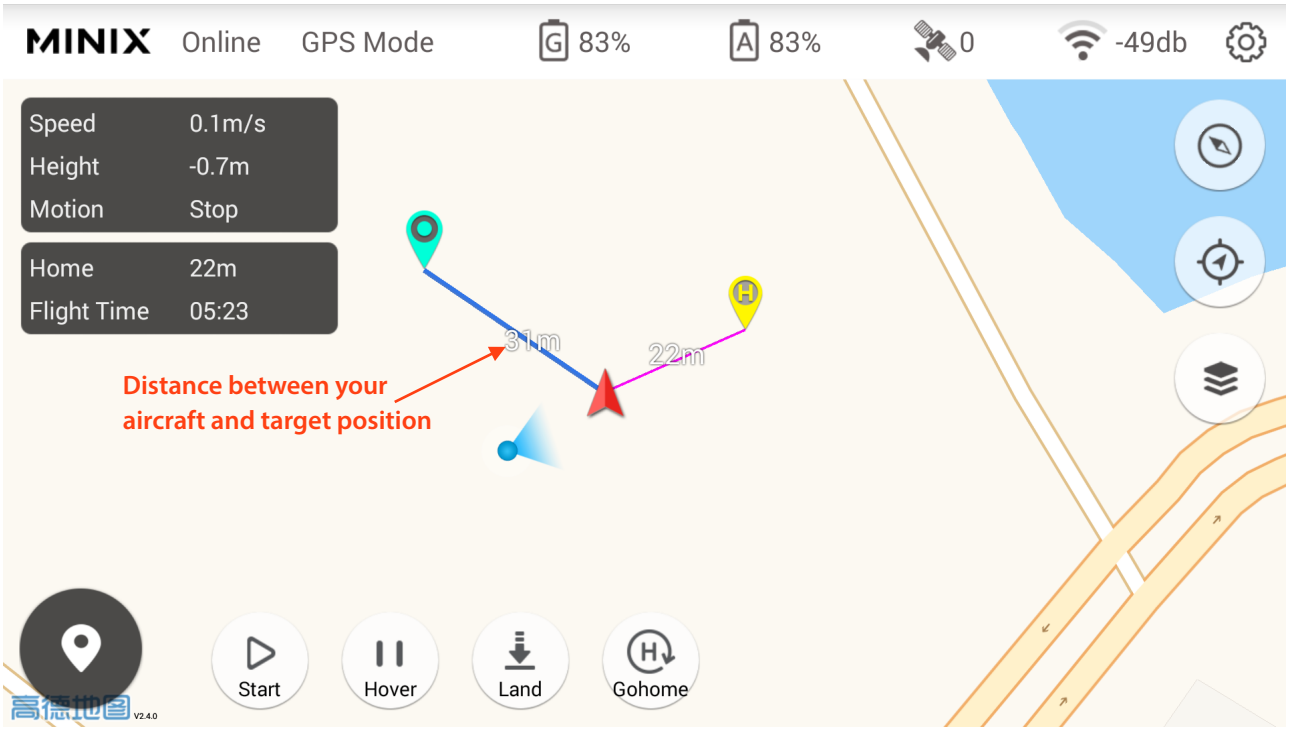
Tap and Go Mode



Start	Tap the target position on the map. When you see then tap to choose the flying speed and flying height. After you complete the settings, just tap **Go**, your aircraft will fly autonomously to the pre-set position.
Hover	Tap to terminate all ongoing flying missions and hold the position.
Land	Tap to command your aircraft landing in situ.
Go Home	Tap to command your aircraft return and land from takeoff position.

Cautions: Never set a new target position if your aircraft is still undertaking the previous flying mission. Always tap **Hover** before you choose your next target position.

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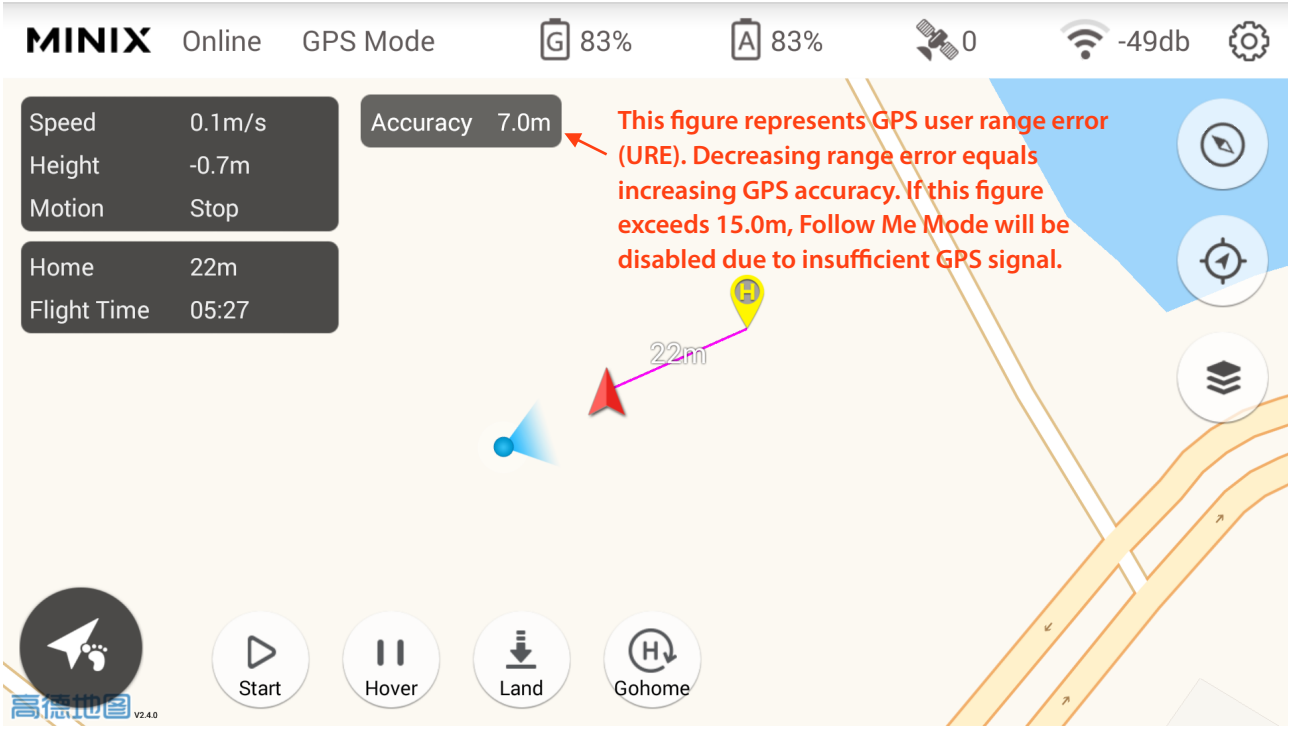
Follow Me Mode



Start	Tap to choose the flying speed and flying height then tap **Go**, your aircraft will fly automatically follow your every move.
Hover	Tap to terminate all ongoing flying missions and hold the position.
Land	Tap to command your aircraft landing in situ.
Go Home	Tap to command your aircraft return and land from takeoff position.

Cautions: Always keep your smart device and Xlink Ground closer than 5 meters.

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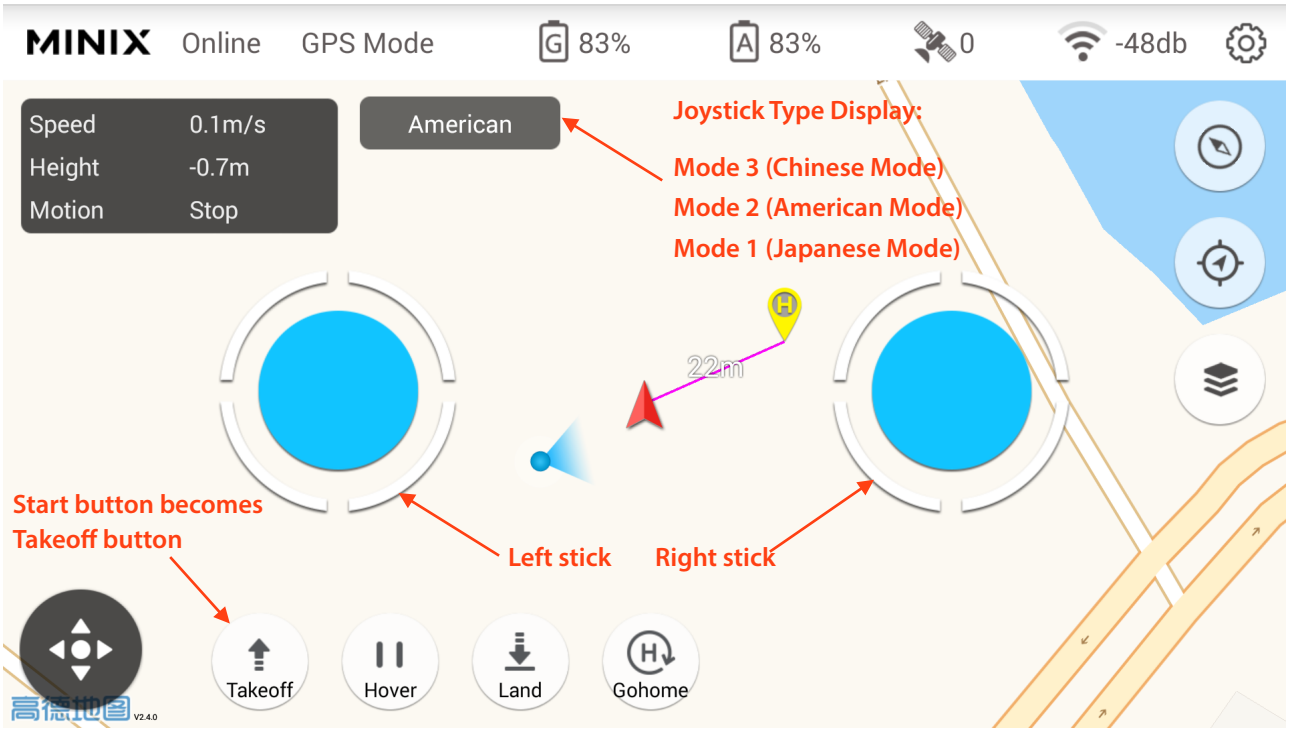
Joystick Mode



Takeoff	Tap then your aircraft will climb to the default height.
Hover	Tap to terminate all ongoing flying missions and hold the position.
Land	Tap to command your aircraft landing in situ.
Go Home	Tap to command your aircraft return and land from takeoff position.

Cautions: Always double check the **Joystick Type** before your takeoff to avoid an unexpected accident caused by unfamiliar joystick mode.

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- Settings

OPTIONS	DESCRIPTIONS
Pairing	Re-pairing
Pairing Detail	Reveal the pairing information / Delete the pairing information
Joystick Type	Mode 3 (Chinese Mode) / Mode 2 (American Mode) / Mode 1 (Japanese Mode)
Languages	Chinese (Simplified) / English
Unit	Metric / Imperial
Alert Settings	Set up the alarming floor of flying height and flying distance
Map Type	AMap / Google Map
About	Reveal APP information

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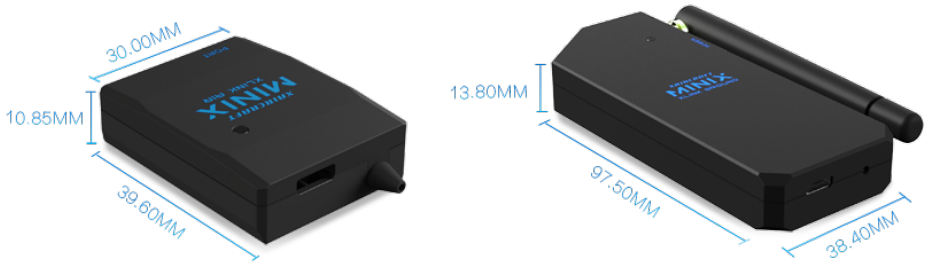
5. Appendix

Technical Specifications

Size (Without Antenna)	
RF Data Rate	≤460.8kbps
Outdoor Range (XLink Ground to XLink Air)	Approximately 1000m
Outdoor Range (XLink Ground to Handheld Device)	≤5m
Transmit Power	≤125mW
Antenna Gain	Ground：3dBi Air：1dBi
Receiver Sensibility (1%PER)	-96dBm
Power Consumption	Ground：≤336mW Air：≤225mW
EIRP (Equivalent isotropic radiated power)	≤125mW
Endurance	≤8.5h
Frequency Band	2.4 GHz
Serial Data Rate	115200bps
XLink Air Interface	4Pin Port
Operating Temperature	-20℃~85℃
Weight (With Antenna)	Ground：63g Air：7g
Battery Capacity	Ground：800mAh or 3Wh
Charging Voltage	Ground: 5V
Working Voltage	Ground：3.5V~4.2V Air：5V

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FAQ

- If XStation cannot correspond to your aircraft, please check the following:

  ✓ Have you kept the distance between your XLink Air and XLink Ground over 1 meter?
  ✓ Have you kept the distance between your smart device and XLink Ground within 5 meters?
  ✓ Is the wiring between your XLink Air and FC connected correctly?
  ✓ Is the power connection to both XLink Air and XLink Ground operating normally?
  ✓ Has there been any communication interference around? We suggest you to try to re-pair your devices or switch to other communication channels to avoid interference.
  ✓ Has the version of your XLink Air, XLink Ground and XStation ever mismatched? We suggest you to update them to the latest version.

- If XLink cannot successfully complete pairing, please check the following:

  ✓ Have you kept the distance between your XLink Air and XLink Ground over 1 meter?
  ✓ Have you kept the distance between your smart device and XLink Ground within 5 meters?
  ✓ Have you turned on the Bluetooth function on your smart device?
  ✓ Has there been any 2.4G radio interference around when you are pairing your XLink (e.g. indoors WIFI interference)? We suggest you to try in other places to avoid interference.
  ✓ Has the wiring between your XLink Air and FC connected correctly?
  ✓ Is the power connection to both XLink Air and XLink Ground operating normally?
  ✓ Have you paired your devices following the correct procedure?
  ✓ Has the version of your XLink Air, XLink Ground and XStation ever mismatched? We suggest you to update them to the latest version.

- If XStation does correspond with your aircraft normally, but does not commence any normal operations, please check the following:

  ✓ Have you put the 3-position-switch on your remote control to Smart Device Command Mode.

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// Fly The Best.

- Dimensions and weights are approximate only.
- XAIRCRAFT has used the best effort to confirm the accuracy of the product information shown here but subject to any final version to be announced by us.
- Design and specifications are subject to change without prior notice.

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